

Appln. No. 10/529,664
Amdt. dated April 10, 2006
Reply to Office Action dated January 20, 2006

R E M A R K S / A R G U M E N T S

Reconsideration of the present application, as amended, is respectfully requested.

The January 20, 2006 Office Action and the Examiner's comments have been carefully considered. In response, the title of the invention, specification and claims are amended, and remarks are set forth below in a sincere effort to place the present application in form for allowance. The amendments are supported by the application as originally filed. Therefore, no new matter is added.

SPECIFICATION AND TITLE

In the Office Action, the title of the invention is objected to as not being descriptive. In response, the title of the invention is amended as proposed by the Examiner. In view of the amendment of title of the invention, reconsideration and withdrawal of the objection to the title of invention is respectfully requested.

In the Office Action the Examiner also objects to the specification because of a misspelled word. In response, the specification is amended to correct this error.

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CLAIM OBJECTIONS

In the Office Action claims 3 and 7 are objected to because of certain informalities. In response, claims 3 and 7 are amended in the manner suggested by the Examiner in a sincere effort to overcome the Examiner's objection. In view of the amendment of claims 3 and 7, reconsideration and withdrawal of the objection to claims 3 and 7 are respectfully requested.

CLAIM REJECTIONS

In the Office Action claims 5, 9 and 10 are rejected under the second paragraph of 35 USC 112 as being indefinite, and under 35 USC 101 as being non-statutory. In response, claims 5 and 9 are amended to include the steps of claims 1 and 6, respectively, and claim 10 is canceled. In view of the amendment of claims 5 and 9 and the cancellation of claim 10, reconsideration and withdrawal of the rejection of claims 5, 9 and 10 are respectfully requested.

PRIOR ART REJECTIONS

In the Office Action claims 1-4 and 6-8 are rejected under 35 USC 103(a) as being unpatentable over USP 5,751,856 (Hirabayashi) in view of USP 5,253,058 (Gharavi).

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In response, independent claims 1 and 6 are amended to clarify the invention.

Claim 1 now recites a method of encoding a media signal, comprising defining a range of first code sequences that would be generated by a first encoder in response to encoding respective groups of one or more media signal samples by the first encoder without encoding the groups of media signal samples, using a second encoder for actually encoding the groups of media signal samples into second code sequences, assigning to each second code sequence a selected one of the first code sequences in accordance with a mapping table, and transmitting the selected first code sequences to represent the information signal.

Claim 6 now recites a method of decoding an encoded information signal, comprising receiving first code sequences associated with a first decoder, enabling decoding of the first code sequences using the first decoder to obtain the information signal having a low encoding quality, replacing said first code sequences by second code sequences in accordance with a mapping table, and decoding the second code sequences using a second decoder to obtain the information signal having a higher information quality.

An important feature of the encoding part of the invention

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is that the media signal samples are encoded only by the "second" encoder, i.e., without the "first" encoder encoding them. The first encoder does not encode the media signal samples (see page 1, lines 27-28). The first code sequences being transmitted are those code sequences that "could be generated" by a first encoder such as a scalar quantizer if such a scalar quantizer was used (see the specification at page 3, lines 8-11). Thus, this first scalar quantizer is referred to as a "hypothetical" scalar quantizer (see the specification at page 3, lines 12-13 and step 12 in FIG. 1). The only encoded media signal samples are those encoded by the second encoder.

An important feature of the decoding part of the invention is that the same encoded information signal can be decoded by either a first decoder or a second decoder which provide different levels of information quality. Thus, upon receipt of first code sequences, these first code sequences could be decoded using the first decoder to obtain the information signal having a low encoding quality (see the specification at page 5, lines 6-15). However, when the first code sequences are replaced by second code sequences in accordance with a mapping table previously provided to the decoder, the second code sequences can be decoded using the second decoder to obtain the information signal having a higher information quality (see the specification at page 5, lines 16-27).

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The prior art cited by the Examiner does not disclose, teach or suggest all of the features now set forth in the independent claims.

Hirabayashi describes an encoding and decoding method in which image data 20 is transformed into a DC component which is directed to a scalar quantizer 3 to be scalar-quantized and an AC component which is directed to a vector quantizer 4 to be vector-quantized. Thus, there is always encoding by two encoders, one a scalar quantizer and the other a vector quantizer.

Gharavi describes a coding technique in which an inverse quantizer uses a map to transform quantized DCT coefficients in actual coefficient values (see col. 5, lines 11-17).

Hirabayashi and Gharavi do not disclose defining code sequences that would be generated by a first encoder without this first encoder actually encoding the code sequences; but rather, having a second encoder encode different code sequences derived by applying a mapping table to the initially defined code sequences. Therefore, Hirabayashi and Gharavi cannot be combined to render the embodiment of claim 1 unpatentable.

Hirabayashi and Gharavi also do not disclose enabling an encoded information signal to be decoded by either a first decoder or a second decoder which provide different levels of information quality, with the second decoder having a mapping table which results in the higher information quality. Both

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Hirabayashi and Gharavi describe a single technique for decoding an information signal and do not consider the possibility of decoding the information signal in two different ways by two decoders dependent on the presence of a mapping table in one of the decoders. Therefore, Hirabayashi and Gharavi cannot be combined to render the embodiment of claim 6 unpatentable.

In view of the foregoing, independent claims 1 and 6 are patentable over the cited prior art under 35 USC 102 as well as 35 USC 103.

Claims 2-4, 7 and 8 are either directly or indirectly dependent on claim 1 or claim 6 and are patentable over the references of record in view of their dependence on claim 1 or claim 6 and because the references of record do not disclose, teach or suggest each of the limitations set forth in claims 2-4, 7 and 8.

In view of the foregoing, claims 1-4 and 6-8 are in form for immediate allowance, which action is earnestly solicited.

NEW CLAIMS

Claims 11-15 are presented. Claims 11-14 depend from claim 1 and set forth additional features of the encoding method thereof which are described in the specification. Claim 15 depends from claim 6 and recites an additional feature of the decoding method thereof which is described in the specification.

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CLAIM FEE

The highest number of claims for which payment was previously made in connection with this application is three (3) independent claims and twenty (20) total claims. After entry of the present Amendment, the present application includes four (4) independent claims and fourteen (14) total claims. Submitted herewith is a Credit Card Authorization Form in the amount of \$200.00 for the addition of one (1) independent claim above the highest number of independent claims for which payment was previously made. If any additional fees are due, please charge or credit Deposit Account No. 14-1270 for such sum.

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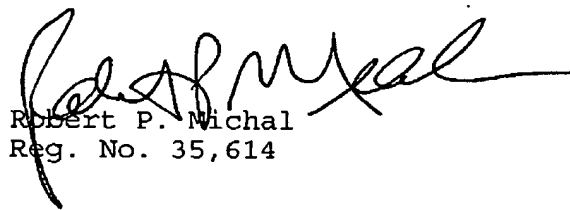
If the Examiner disagrees with any of the foregoing, the Examiner is respectfully requested to point out where there is support for a contrary view.

Entry of the amendment, allowance of the claims, and the passing of the application to issue are respectfully solicited.

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If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

Respectfully submitted,



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